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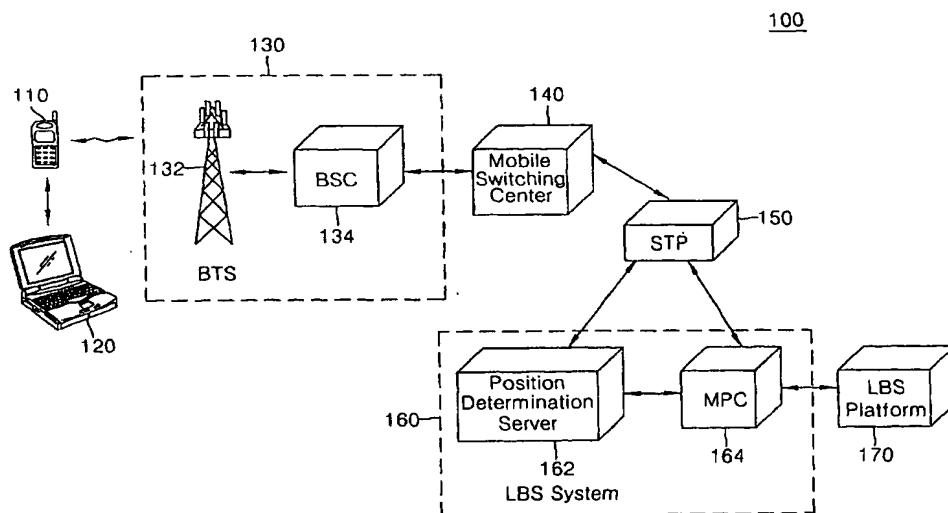
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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR MONITORING MOBILE COMMUNICATION TERMINAL POSITION DETERMINATION PERFORMANCE BY USING WIRELESS COMMUNICATION NETWORK AND A-GPS



(57) Abstract: Disclosed are a system, method and computer readable storage medium storing a LBS(Location Based Service) wireless network analysis program receiving, analyzing, processing and displaying LBS messages defined in IP-801-1 standard by using a wireless network and an A(Assisted)-GPS(Global Positioning System), wherein the LBS wireless network analysis program, coded in a computer language, performs analyzing the LBS messages, displays analyzed LBS messages, and processes and displays information on the wireless network, information on GPS satellite and measured coordinate values included in the LBS messages in text and/or image format.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2004/000198

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 H04B 7/26**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC H04B, G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

KOREAN PATENTS AND APPLICATIONS FOR INVENTIONS SINCE 1975

KOREAN UTILITY MODELS AND APPLICATIONS FOR UTILITY MODELS SINCE 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

KIPO-NET, DELPHION

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	US 2001-148671 A (QAULCOMM INC.) 7 August 2003 * the whole documents *	1 - 33
P, A	JP 2003-255039 A (NIPPON WIRELESS CO.) 10 September 2003 * abstract *	1 - 33
A	DE 10110136 A1 (Harman Becker Automotive Systems GmbH) 5 September 2002 * abstract *	1 - 33



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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003-148671 A	2003-08-07	WO 03/067277 A2	2003-08-14
JP 2003-255039 A	2003-09-10	NONE	
DE 10110136 A1	2002-09-05	NONE	